

# GREENHOUSE GAS EMISSIONS MANAGEMENT



## *Strategic Lifecycle Analysis and Advisory for Fuel Supply Chains*

Greenhouse gas (GHG) management has become a critical imperative for energy producers, transporters, traders, buyers, financiers, and operators worldwide. Internationally, financial and regulatory authorities increasingly require fuel buyers and sellers to analyze and report lifecycle GHG emissions across their supply chains. Penalties, taxes, incentives, and price adjustments have begun to apply to the GHG content or intensity at various points of transaction and trade. Additionally, the GHG emissions intensities of energy supplies, trade, deliveries, investments, and financings are increasingly subject to critical environmental, social, and governance (ESG) compliance standards applicable to executives, boards, and banks.

Accurate and systematic lifecycle analysis (LCA), tracking, and reporting of full supply chain and lifecycle GHG emissions are of mounting priority as a policy and business imperative for the production, trade, delivery, and consumption of clean fuels (e.g., hydrogen, natural gas, and LNG) as compared to legacy fuels (e.g., coal and oil).

BRG's Energy & Climate experts provide lifecycle emissions intensity measurement and monitoring, from wellhead to power generation and industrial consumption. We provide integrated analysis of CH<sub>4</sub> and CO<sub>2</sub> emissions data from the best available sources—such as government agencies, multilateral organizations, and satellite operators—to estimate the GHG emissions footprint of clean and legacy fuel supply chains. We provide estimates on both a systemic, industrywide level and a specific company or supply chain level, including analysis of a company's direct emissions (Scope 1), indirect emissions from the supply of electricity (Scope 2), and other indirect emissions (Scope 3).<sup>1</sup>

### **Systemic Analysis**

We advise industry groups, governments, multilateral organizations, and companies on GHG emissions intensity along supply chains for clean and legacy fuels. We perform comparative analysis of full supply chain GHG emissions for the leading clean fuels and competing legacy fuels used for electricity generation and/or industrial production. Clients use our analyses to:

- Inform policymaking and advocacy
- Support ESG strategy, planning, and goal setting
- Evaluate and/or benchmark GHG intensity in relation to industry averages for comparable and/or competing fuels and delivery and/or consumption points in national, regional, and/or global markets
- Evaluate the impact of GHG policies and practices on market function and economics
- Analyze potential economic costs, benefits, and value of GHG abatement by integrating GHG emission intensity levels with rigorous analysis of GHG prices and fees into BRG's industry-leading analytic models and tools ([click here to view LNG Horizon](#))

<sup>1</sup> Scope 1: direct GHG emissions occurring from sources that are owned and controlled by the company. Scope 2: indirect GHG emissions from the generation of purchased electricity consumed by the company. Scope 3: GHG emissions that are a consequence of the activities of the specific company but occur from sources not owned or controlled by the company. [Source: the Greenhouse Gas Protocol. <https://ghgprotocol.org/>]

## Specific Supply Chain Analysis

Our experts provide world-class expertise in clean fuels, hydrogen, power, and renewables. We offer strategic analytic, modeling, forecasting, and advisory services to help companies analyze and manage GHG emissions along their supply chains for clean fuels, including:

- Define and quantify client's full product and/or portfolio supply chain GHG footprints, analyzing GHG emissions intensities across energy production and infrastructure facilities, from original extraction through to end use and consumption (Scope 1, 2, and 3)
- Compare specific GHG emissions intensity to benchmarks for comparable and competing fuels (see Systemic Analysis above)
- Effectively populate and deploy commercial LCA models such as GREET
- Analyze and monitor key ESG performance indicators and other GHG emissions metrics for regulatory and/or financial compliance
- Design actionable and economically efficient decarbonization strategies
- Assess implications of GHG emissions on energy portfolio revenues and/or costs
- Analyze future economic and commercial value of GHG abatement and reduced emissions intensity



## About BRG

Berkeley Research Group (BRG) is a global consulting firm that helps leading organizations advance in three key areas: disputes and investigations, corporate finance, and performance improvement and advisory. Headquartered in California with offices around the world, we are an integrated group of experts, industry leaders, academics, data scientists, and professionals working across borders and disciplines. We harness our collective expertise to deliver the inspired insights and practical strategies our clients need to stay ahead of what's next. Visit [thinkbrg.com/contact.html](https://thinkbrg.com/contact.html) to find out how we can unlock potential for your business.

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